

NEK-0001

**REMARKS**

Claims 1-5 are pending in the present Application. Claims 4 and 5 have been canceled, claim 1 has been amended, and no claim has been added, leaving Claims 1-3 for consideration upon entry of the present Amendment.

The specification has been amended to correct certain inadvertent typographical errors found in the specification as provided in PCT application no. KR2004/001350 in the paragraphs on p. 3, line 24 to p.4, line 6, and on p. 7, line 22 to p. 8, line 14.

Claim 1 has been amended to include a solvent limitation to an alcohol as found in original claim 4 and in the specification as provided in PCT application no. KR2004/001350 on p. 6, lines 15-17 and 24-25. Accordingly, claim 4 is canceled upon entry of the present amendment. In addition, claim 1 has been amended to remove an inadvertent typographical error.

Claim 5 is canceled upon entry of the present amendment.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

**Claim Rejections Under 35 U.S.C. § 112, Second Paragraph**

Claims 1-5 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Examiner has stated that Claim 1, from which the remaining claims depend, does not include a lower limit for the reaction pressure. Applicants traverse the rejection and respectfully assert that adequate disclosure of the lower limit for the reaction pressure is provided in the claim as written. Claim 1 claims "under a pressure condition of an atmospheric pressure to 10 kg/cm<sup>2</sup>" (emphasis added). It will be appreciated from this statement in claim 1 that "atmospheric pressure" is provided as the lower pressure limit. It will also be appreciated by one skilled in the art that use of the term "atmospheric pressure" is a term commonly used to describe the ambient pressure, and predominantly depends upon the elevation relative to sea level at which the pressure is measured, and upon

NEK-0001

the ambient barometric conditions (as due to the atmospheric movement of high and low pressure systems accompanying weather fronts, etc.) present at the time and in the location where an atmospheric pressure measurement is taken. Thus, the term "atmospheric pressure" of instant claim 1 is the relative pressure in the reaction vessel as defined by the ambient conditions, so that the reaction is not being run under vacuum relative to the atmospheric pressure, nor is the reaction being run at an elevated pressure relative to the atmospheric pressure, but is being run at the atmospheric pressure measurable at the time the reaction is being run. Applicants therefore believe claim 1 as written is unambiguous and consistent within both the intent of the limitation of the claim and within the widely used and accepted term of art "atmospheric pressure." Claims 2-5, which are dependent upon claim 1, are therefore also unambiguous.

Further, the word "an" in reference to "an atmospheric pressure" was inadvertently included in the specification as noted above and in claim 1, and its inclusion was inadvertent typographical error. The specification and claim 1 have therefore been amended to remove the word "an" to provide the correct grammar, and to assist in clarifying the above explanation of "atmospheric pressure". Claim 1 as amended, and its dependent claims, should therefore be free of any alleged indefiniteness with entry of the present amendments and consideration of the above discussion. Applicants believe that this explanation and the amendments fully address the Examiner's concerns, and Applicants therefore respectfully request reconsideration and withdrawal of the rejection.

#### Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1, 2, and 4 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by U.S. Patent No. 4,147,884 ("Sheng"). Applicants respectfully traverse this rejection.

Sheng discloses a process for liquid phase oxidation of an unsaturated lower aliphatic aldehyde to the corresponding carboxylic acid. Col. 1, lines 58-61. Oxidation is carried out by passage of an oxygen containing gas through a liquid medium containing the unsaturated aldehyde and a fluorine-containing organic compound. Col. 2, lines 4-7.

To anticipate a claim, a reference must disclose each and every element of the claim.

NEK-0001

*Lewmar Marine v. Varient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987). Sheng discloses, in pertinent part, that the "oxidation of the unsaturated aldehyde is carried out in a liquid medium in the presence of at least one fluorine-containing organic diluent." Col. 2, lines 49-51. Sheng further states that "the fluorine-containing organic compound may be used as the sole solvent-diluent or together with non-fluorinated solvents or diluents." Col. 3, lines 62-64. Alcohols may be included as an additional solvent-diluent. Col. 3, line 68. It is thus shown that the elements pertaining to solvent composition in Sheng include either 1.) a fluorine-containing organic solvent alone, or 2.) a combination of a fluorine-containing organic solvent and a co-solvent. In addition, Sheng states that it is "important that the fluorine-containing organic solvent and any co-solvent be in the liquid phase during the reaction." Col. 4, lines 10-12. Sheng thereby emphasizes the importance of the fluorine-containing organic solvent to the process of Sheng, and thereby also teaches away from the non-inclusion of fluorine-containing organic solvents. Claim 1 as amended claims an alcohol as the solvent, where the alcohol is a hydrocarbon compound. Fluorocarbons are not claimed in the instant claims. It will also be appreciated by one skilled in the art that fluorocarbons are not identical to hydrocarbons. Therefore, the hydrocarbon-alcohol of claim 1 is not an element identical to either of the elements disclosed in Sheng of either the fluorinated organic solvent or the combination of fluorinated organic solvent and co-solvent. Sheng thus fails to disclose all elements of claim 1, and therefore Sheng does not anticipate claim 1 or its dependents. Accordingly, reconsideration, withdrawal of the rejection, and allowance of the claims are respectfully requested.

Claim 5 stands rejected under 35 U.S.C. § 102(b), as allegedly anticipated by Sheng. As discussed above, claim 5 is canceled upon entry of the present amendment. Therefore, Applicants respectfully request the Examiner withdraw the rejection to claim 5.

Claim Rejections Under 35 U.S.C. § 103(a)

Claim 3 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Sheng. Applicants respectfully traverse this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of

NEK-0001

establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). As discussed hereinabove, Sheng fails to disclose a solvent or diluent which does not contain a fluorinated organic solvent. Further, Sheng states that it is "important that the fluorine-containing organic solvent and any co-solvent be in the liquid phase during the reaction." Col. 4, lines 10-12. Sheng thereby teaches the importance of the fluorine-containing organic solvent to the process of Sheng, and thereby also teaches away from the non-inclusion of fluorine-containing organic solvents. Claim 1 as amended claims an alcohol as the solvent, where the alcohol is a hydrocarbon compound. Fluorocarbons are not claimed in the instant claims. It will also be appreciated by one skilled in the art that fluorocarbons are not identical to hydrocarbons. Therefore, the hydrocarbon-alcohol of claim 1 is not an element identical to either of the elements disclosed in Sheng of either the fluorinated organic solvent or the combination of fluorinated organic solvent and co-solvent. Sheng thus fails to disclose or teach all elements of claim 1, from which claim 3 depends. Thus, Sheng does not does not teach or disclose all elements of claim 3 and all intervening claims, and therefore does not anticipate these claims. Accordingly, reconsideration, withdrawal of the rejection, and allowance of the claims are respectfully requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are respectfully requested.

NEK-0001

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

CANTOR COLBURN LLP

By *Dana A. Gronbeck*

Dana A. Gronbeck

Registration No. 55,226

Confirmation No. 2373

CANTOR COLBURN LLP

55 Griffin Road South

Bloomfield, CT 06002

Telephone (860) 286-2929

Facsimile (860) 286-0115

Customer No.: 23413

Date: May 1, 2006